JACG

THE JERSEY ATARI COMPUTER GROUP

EDITORIAL

There's been a lot of talk (and controversy) lately vis à vis 8-bit vs 16-bit coverage in magazines, availability in stores, and coverage at user group meetings. This has not gone without notice in our own group. 8-bit owners feel threatened, 16-bit owners feel under-recognized. The 8-bitters cry for continuing software development, the 16-bitters look for more variety than what is yet available. The anecdote told by the representative of "The New Aladdin" adds a dimension that many of us may not have previously comprehended - what J.T. feels is best for the continued health of ATARI Corp. According to the story, when J.T. first saw a demo of Aladdin, he thought that it was an ST demo, pondered the fact that it wasn't, and then stated that he wanted it available for the ST. The simple answer - the graphics are so good; they can't but help sell the ST!

I don't think, however, that there is a near future write-off of software development for ATARI 8-bit machines. Significant numbers of new titles have come out this year (of course, one always would like to see more!). With prices for software coming down, coupled with an enhanced awareness of the damage to development initiative that piracy creates (and a concomitant decrease in such reportedly blatant activity on the part of some of the ATARI owning community), developers may feel that there is still gold "in them thar hills", and hopefully come out with some QUALITY software. After all, there are a lot of ATARI 8-bit machines out there!

As far as the ST goes, the future looks bright indeed. It is better than the AMIGA, it is outselling the AMIGA, and it is less expensive (but not "cheaper") than the AMIGA. It is also being marketed by a corporation which appears to be quite healthy, in an industry where illness is rampant! I think also, that outright abandonment of the 8-bitters by ATARI would not be in their best long-term interest of fostering ST sales among a group most supportive of ATARI. Even as regards third party software developers, ATARI owners have long memories, distaste as to treatment of 8-bitters WILL carry over with owners of 8-bit machines who transfer to the 16-bit environment. DEVELOPERS PLEASE NOTE!
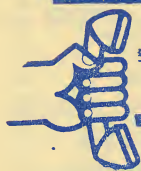
Where does this all lead? We ATARIANS are too sophisticated to allow a rift to develop where none currently exists, and where none should exist. Through fair and judicious programming, our meetings should continue to be of great value and interest to ALL ATARI owners; and through our efforts, publications (including OUR newsletter) should continue to reflect the entire spectrum of ATARIDOM. And, no less importantly, our continued purchase of ATARI products, and products for ATARI, will ensure continued support of all ATARI machines.

D. B. Morse

In This Issue

MARK YOUR CALENDAR !!
JACG
Meeting Schedule

Dec. 13, 1986

Let the JACG Do the Work for You

Gary Gorski
JACG Sales Manager

Sit back, relax, and earn extra money, by letting the JACG sell your original software. For one reason or another, we all buy software that just isn't right, has been outgrown, or is no longer needed.

The JACG will sell that software (maximum of 3 per month) at it's monthly meetings. All you have to do is to bring in the software and original documentation clearly marked with your name, member number, and the price you would like to sell it for!! For 20% of the sale price, the JACG will handle the sale for you with no hassles. Please be sure to bring your software early to the meeting so it can be displayed at the flea market. This can be a wonderful way to get that much needed extra ca$h for Chri$tma$!

If you need additional information, please call or drop me a line.

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FLEA MARKET RULES
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In order to clarify the intention of the Executive Committee in sanctioning the use of the BTL lobby before and after monthly meetings for use as a member flea market we publish the following rules:

1. All flea market sellers must be current JACG members.
2. Space is provided on a first-come, first-served basis.
3. Only ORIGINAL programs with ORIGINAL documentation may be sold in the area of software.
4. Hardware of any type may be sold normally without constraint. The Executive Committee reserves the right, however, to limit the physical size and space consumed by such hardware.
5. Flea market business will be conducted only in the lobby and ONLY when the meeting is not in session in the auditorium.
6. The Executive Committee reserves the right to deny or suspend the privilege of flea market usage to any person, member or not, for infraction of these operating rules.

JACG Membership

The Jersey Atari Computer Group (JACG) invites you to become a member. Dues are $20.00 per year ($30.00 per year international: Mexico and Canada $20.00) and entitle the member to: 1) Receive the monthly newsletter; 2) Purchase programs from the group's extensive tape and disk libraries at special rates; 3) Join special interest groups or form new ones; 4) Benefit from the expertise and experience of other Atari computer users; 5) Participate in group purchases of software at substantially reduced prices; 6) Receive a membership card that entitles the member to discounts at local computer stores; 7) Attend monthly meetings to learn about the latest hardware and software, rumors, and techniques for getting the most out of your Atari computer; 8) Submit articles and programs to the newsletter and give demos and presentations at the monthly meetings; 9) Participate in sale/swap activities with other members; 10) Access the JACG nationally famous Bulletin Board; and 11) Have a lot of fun.

Newsletters are sent third class mail. If you want first class mailing include an extra $6.00 with your basic dues.

If all of this sounds good to you send a check or money order, payable to JACG, to:

Joseph Kennedy, Membership Chairman
126 Jupitor Street
Clark, NJ 07066

THE VIEW
FROM WHITE HOUSE.
The Presidents' message.
by Bill Martin

HOT LINE TO THE PRESIDENT. - (201) 534-6349

It's November and time for the old wrap up. Looking back, what has been accomplished? Have I fulfilled my campaign promises? In defense of my position, I must say that I was called upon an inordinate amount of time to put out one heck of a lot of fires along the path. One major catastrophe followed another. At times, I thought that I was doing a study in stress management. The one thing that made my job easier was the way that the members were ready to jump in and volunteer.

Thanks to the late, Frank Pazel, Turner Electronics and Dr. Michael Carey and the Mountain Lakes School Board of Education; we were able to meet for the past five months in an excellent setting with really fine facilities. Thanks to these members and "friends" of the club we were able to function during this most difficult period. We appreciate all of their efforts.

On the negative side, the loss of the club's good friend and editor Frank pazel was like the "ultimate blow". He will be missed by a lot of people, for some time to come.

In general, the club is a bit leaner now, because all of those "temporary" meetings in Mountain Lakes have taken their toll in our attendance and membership. Distance from the Bell facility and our inability to communicate our location to all those potential new members was the real culprit. On the other side of the coin, we have picked up some out of state members thanks to former president Art Leyenberger's mention of, and Tom Pazel's Print Shop utilities. Art's article in Analog magazine generated about 150 inquiries for the program, and as soon as our brochure was ready I included it with the mailing. All in all, I think that things will improve once we are fully situated back in our regular location at Bell Laboratories in Murray Hill.

My personal goal of putting the cost of the newsletter into the realm of realism has been accomplished. Formally, our newsletter was costing more than the due's we were taking in. First, I increased the cost of advertising by a few dollars so that it makes a slight profit. Previously, it was actually costing the club money when someone ran an ad. Next, we cut the cost of mailing by going to Third Class. That resulted in an immediate saving of about $250.00 per month in postage. Newsletter Editor Dave Noyes has now searched out an alternate printer and has appreciated an additional savings of $150.00 per month in printing cost. The bottom line is that we were taking in $10,000 every year and spending $13 or 14,000, on the newsletter alone. We are now spending $7,200 for the same service with a slight increase in delivery time. My goal of having the newsletter cost no more than 75% of the due's has been accomplished.

Thanks to member Richard Semel, we are now incorporated and are well on our way to non-profit status. This will cut a few more dollars from our cost in the very near future. It also protects club members from litigation in case one of our more outspoken representatives should tell the emperor that his sartorial splendor, isn't (!), and he, or she, doesn't like it.

At the October meeting I mentioned that after years of dedicated service, the JACG library team was experiencing burn out. These are the guys who, without lots of notoriety, get out there and do the work. Well, in response to my request, five (count "em") 5 members stepped forward and volunteered. As I am ready to mail this to meet my deadline, I'm now advised that some of the librarians have had a change of heart and will continue to serve, though in a somewhat reduced manner. The new volunteers are Chief Librarian Sam Cory; with Brett Callegari, Dave Green, Bob Crocetti and Joseph Kazimer. My thanks to retiring Chief Librarian, Don Ursem who has consented to head up our ST SIG (special interest group). Meanwhile, to Ken McCollough, Richard Lamb, Dennis Hoskins and Jim Budelman; whatever their final decision is, I thank them for their service and dedication and wish them well.

Our face is clean and we have a new suit on. Simple things like "Thermoprint" raised letterhead that doesn't look like we drew up one piece and had it duplicated a million times, and a color promotional brochure to be placed in stores and mailed to prospective members. What I tried to do was to escape the image that our organization's membership was made up of a half a dozen 12 year olds who had a "real neat" club. Like a fresh coat of paint on a well constructed building, the perception has finally caught up with our image. Witness, the comment of John Henson, Editor in Chief of the New Aladdin at the October, meeting. when he said that we were the most "organized and professional group", he had visited.

The Officer and Chairperson name tags represented my attempt to let everyone know, (at a glance) who was, (or is), who. My premise was to promote greater interaction between the members. This was a "quick fix" that I feel should be expanded upon in the future.

PDG

by Joseph S. Kennedy - JACG

Let's look at a program that is brought to us from Germany. From the same person who wrote Turbo Basic is the Turbo Basic Compiler (TBC). TBC will compile BASIC programs written in Atari BASIC or Turbo BASIC. If you think that your Atari BASIC programs went fast when you ran them in Turbo BASIC wait 'til you try to control a joystick in a TBC compiled program.

Before we go too far and you get over excited about it remember you need an Atari 800XL, 130 XE or 65XE to use the program. You can use the ramdisk with the 130XE as drive #8 wit TBC. You cannot use the compiled programs on any machines other than the XL/XE machines either. Sorry 800 owners.

You need two programs with TBC - the compiler (COMPILER.COM) and the runtime package (RUNTIME.COM). TBC needs the runtime package because it does not produce runable code. After you have booted-up and loaded the compiler program or have named it AUTORUN.SYS to boot-up automatically, you will see a screen full of German. Don't be dismayed! This screen is just telling you to put a disk with the program to be compiled in the drive and then enter the drive number that you put it in. When you do all files on that disk will be listed. One will be highlighted in inverse letters. To select the file that you want to compile just move the highlighting with the arrow keys without using the CONTROL key. When you have the program you want press the RETURN key. TBC will begin to compile your program.

TBC is a two pass compiler but it only needs to read from the disk once. If you have a program that TBC is capable of compiling, you will see the message "Keine Fehler" (no errors) then you will be asked to name the program. The name can be eight characters long and must have the extender '.CTB'. TBC will not allow any other extender. If the compiled program is to be written to drive #1 you don't need to specify the drive - for any other drive you must specify it. The program should be written to a disk that has DOS 2.0 or 2.5 DOS.SYS and DUP.SYS files as well as the TBC RUNTIME.COM file on it. Before you press RETURN after specifying the file name, make sure that disk is in the specified drive. After the program is written you can compile another program by responding to that question with a 'J' for yes (ja) or 'N' for no. If you enter 'N' you can then enter CONTROL D if you want to exit to DOS or CONTROL R if you want to reboot. This is useful if you want to try the compiled program immediately.

Now all this is well and good if the program compiles but you ask what if it won't compile? Well, as you see the program line numbers fly by on the screen any errors will be listed by line number and the cause of the error. TBC does not support LIST, ENTER, *L, DELETE, RENUM, DUMP, TRACE, CONT, LOAD, SAVE, CLOAD, NEW and ERROR. TBC will ignore REM statements. FOR statements with two or more NEXT statements cannot be compiled. This also goes for the similar statements in Turbo BASIC such as REPEAT - UNTIL, WHILE-WEND, etc. TBC also cannot jump out of FOR - NEXT with a GOTO, GOSUB, etc. TBC will also report an error if POKE, DPOKE, PEEK, PLOT or GRAPHICS statements have numbers too big or too small. Otherwise TBC will compile all your programs or so says the original article in German. However I haven't compiled all your basic programs so I can't say for sure that this is true.

TBC is fast! It's easy to use. And most important, it's the right price.

I close this the Twelvth of the PDG series with a good-bye. I have found it most enjoyable bringing these public domain programs to you (and I should add enjoyable to use the programs as I prepared the review). As you may recall this column started as a review of the JACG Program Library. This review will be continued by Doug Van Hook. I hope you give him the support that you have given me over the past year. Thank you.

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**************
*     J      *
*GIVE A BIT!!*
*     C      *
*     G      *
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JACG Elections

Joseph S. Kennedy - JACG

During the October meeting the following officers for the coming year were nominated:

President - Joe Kennedy
Vice President - Tom Pazel
                 Scott Jacoves
Secretary - Bob Mulhearn
Treasurer - Shree Vandenberg

At the November meeting we will elect the officers for the following year. Be there so that you vote will count.

What does the future look like? I see a possible separation of the 8 and 16 bit factions insofar as the meetings are concerned. If this is to be avoided, (and I think it should), we have to be realistic about it. One local club that I know of has gone totally 16 bit, leaving

the 8 bit members to form another group. As the installed base of ST's increase, more meeting time is going to be demanded and I think, rightly so. In the past year, I spent less on (8 bit) software than I did in any one month during the previous year. It's not there and it doesn't seem to be coming. What's worse is that, with few exceptions, those programs that are released don't seem to do anything really new, or exciting. As more programs like "Thunder", (By Batteries Included) are introduced, at a reasonable price may I add, I'm going to become more and more convinced that the ST is the way to go.

Lastly I'd like to thank you the members, especially the volunteer's and officers. I could sit here for another hour and name names. Suffice it to say that You have all shown me so much help and cooperation without which I would never have been able to hold this group together. You are to be congratulated for your spirit, efforts and hard work. It is reflected in our pride.

Late news. Scott Jacoves announces that the bulletin board is back. Multiple software problems with Scott Brause's BBCS resulted in our trashing it and going over to a new program called Carina which is now the official board of the JACG, Inc. Late reports are that it is one of the better boards on the market and it is up and running. A command list and an advertisement are to be found elsewhere in this issue. In New Jersey, the number to call is 201- 625-9647 (OAK XMIS, for you die-hard mnemonics fans). Scott Jacoves has put in a lot of hard work to get the board up and running. It's not right that someone as young as he is should experience such frustration. Thank you Scott!

HELP!!! We are looking to you, our membership for original articles for the newsletter. Things have gotten so bad that we had to run Tom Plucks review of Fooblitzky AGAIN. Come on friends, lets help poor old Dave Noyes out. Give him some new stuff to run. I wonder if anyone else beside myself noticed it? We also need demo's. Call Tom Pluck to schedule yourself for a future meeting. Anything will do!

Our call for a way to honor the memory of Frank Pazel by naming the news letter after him, resulted in two calls. Status quo will reign. Member Mary Russomano presented an idea at the October meeting to give an annual

"Frank Pazel Memorial" award to the person who had done the most for computing in the year. I named her to chair a committee of five persons, two regular members and two officers to decide on the details and criteria.

BUYER BEWARE

Since most of us pay Compuserve, (%CIS%) by credit card, no problem. If we paid by direct bank billing to our checking account, we may not have noticed any problem.

Member Sam Cory found out though. He had a month or two when he didn't use CIS and found out that he had incurred a $5.00 monthly minimum charge. Something like paying extra to not have your phone number published. I had trouble finding it myself in the plethora of data that one must peruse.

The best one I found is the recent GE "ad" in Antic that let's you sign up on a toll free (800) number and them offers you a list of numbers that you will really use. The "ad" doesn't tell you this. Just that it's going to cost you $18.00 to enroll. One thing I must say is that the 1200 baud fee of $5.00 per hour is a bargain next to CIS's $12.75. My only question is, what do they offer? If they are really good, they should offer a "read only" tour of the facilities!

IN THE DISPATCH POUCH.

From time to time we get special offers or advertisements from hard/software distributors. I'll try to mention them here. Presence of an item in this portion of my column is not to be considered an endorsement. Please don't hold me responsible for typo's or mis-interpretation and here's the BIG ONE. If you make an inquiry, mention where you saw it. They might even advertise with us, and send me a free one! The dispatch pouch was such a hit last month that I have decided to do it as a regular column. Send Stuff for the mini review to Bill Martin. P.O. Box 356, Whitehouse Station, NJ 08889-0356.

-The Pierstorff Company., 131 W. Main St., Woodland, CA 95695. "MORE! GRAPHICS" $19.95 + $3 s/h. Visa or MC holder's can call Classic Supply at 916- 666-3530. AUG (Atari User Groups) discount price of $10 each for ten or more + $3 s/h.

-Tech Styles. Box 1877, Winter Haven, FL 33882-1877. "T" shirts $8.50 + $1.50 s/h and Sweatshirts, $18.50 +$2 s/h. "Cute", saying's such as, "User Friendly", "I'm full of Boole", "I'm married to a computer nerd.", and "Computer Nerd". You, know what I mean!

-Tech Mate. (See complete information on the ST demo disk NOW in our library). This was a pre-release version of a mouse activated chess game. I thought I was great because I beat it every time. This won't happen on the final copy. Appox. $49.94. The demo was fast, smooth and fun. Try it out. For $5 bucks you can't go wrong. Be a "winner" for once.

-Power Star from Pandora Software, Inc. 177 Carlton Ln., North Andover, MA 01845. A graphic adventure on cartridge. First few minutes seemed "interesting" but not "super challenging".

-MAGIC SAC PLUS from Data Pacific Inc. 609 East Speer Blvd., Denver, CO 80203-4240. (303) 733-8158. Here it is, the Apple Macintosh upgrade that enables the ST to use Mac software. You purchase the Apple chips, install them in the cart and.... you had better read the brochure fully before you jump on this one. The reason is that the Mac software has to be transferred over to the ST because of disk format differences. It's a fantastic deal if you know what you are getting into. Retail at $149.95. Order 10, (Call Gary Gorski) and the price drops 20%.

It has been both an exciting experience and a challenge being president of the JACG and I really have to admit that I'm going to miss it. I appreciate the opportunity you gave me to serve, and the support that you gave me to accomplish my goals. Now if I could only translate these skills into a valid job offer in the computer or communications field, I'd...!

The Forbidden Word
Tom Pluck - JACG

Pirate! Piracy! Pirating!
The words that make the loyal Atarian shudder in disgust. Just so I don't say that word again, I'll call them nweebs (Doesn't this remind you of the Knights Of Nee from Monty Python and the Holy Grail?) These nweebs are the cause for less good 8-bit Atari software on the market. If we cannot rid the world of these horrid parasitical menaces, pretty soon there will be nothing but the occasional INFOCOM text adventure, if even that. Rumor has it that MicroPROSE will make no new simulations for Atari 8-bits except for ones already in the making and in production. What's next? BRODERBUND? Imagine the world without The Print Shop. Stop quivering. Maybe we can knock some sense into these nweebs. Maybe we should wage a war against the nweebs! Naw. I've got to calm down.

But seriously, if you are a nweeb, I encourage you to stop "nweebing" software. Pretty soon there will not be anything left to "nweeb." Then what? It's all up to you.

This is Doctor Dead signing off. See y'all next month.

October's Meeting
in Brief

Reported by: Tom Pluck

The meeting was again held at Mountain Lakes High School. First our secretary, Robert Mulhearn held a Q & A session, and told us some valuable tips and how to hook up two 8-bits to share one disk drive. After president Bill Martin's opening statements, nominations were held.

Oscar Grannison demo'd Batteries Included's B/GRAPH, a program which makes creating pie, line, and bar charts simple. It also lets you make many different kinds of analyses. Afterwards, we had Mr John Hensen from The New Aladdin, a magazine-on-a-disk. He showed us a ton of neat stuff from May 1986's disk-a-zine, which included reviews, opinions, cartoons, news, a game, some amazing art sent in by subscribers, and much more. He also previewed a game from October 1986's disk-a-zine- "The Count", an interactive movie with excellent graphics (they looked digitized, but they were in sizes Computereyes cannot produce!) Mr Hensen was later seen selling bimonthly subscriptions in the dealer room as if he was selling water in the Sahara ....

We also had the world's quickest raffle-off, because of a new system in which you only get a ticket if vice pres. Joe Kennedy stamps your newsletter with a smiley face. The prizes were a copy of the May 1986 New Aladdin (thanks again Mr Hensen) and disk coupons provided by our very own president Bill Martin.

See you next month, fellow Atarians!

Just for trivia, in the story that tells you of your quest, a constellation is mentioned, the constellation Atarius, I believe ....

This review submitted by: Doctor Dead. Not Pluck Rogers.

Trivia Mathematica

By Donald Forbes -- JACG

Did you know that:

A philosophy of Mathematics is not convincing unless it is founded on an examination of Mathematics itself, and that Wittgenstein and other philosophers have failed in this regard.

Bertrand Russell aserted that Mathematics is a branch of logic, and carried out such a development in a massive (but now neglected) book 'Principia Mathematica'?

The Hilbert School holds that Mathematics can be regarded as a purely formal manipulation of symbols, as though in a game?

Finitists hold that infinite sets are just convenient fictions, while only the finite is 'real'? On the fourth day of Christmas, did my true love send me four colley birds or a set of four colley birds? Where is the set?

A rigid motion of an equilateral triangle into itself could be a rotation or reflection or the identity (every point stays put), giving six such symmetries of the triangle?

Classification of crystals by their symmetry groups was not developed until the 19th century, and the first explicit use of group notions came with Galois (1832) to prove theorems about the solution of algebraic equations?

The notion of a topological space was first presented by Felix Hausdorff in a famous (and beautiful) book 'Mengenlehre'?

It is a curious fact that abstract set theory arose from a study of trigonometric series?

Using permutations of the roots, solution of fifth degree polynomials by radicals was eventually shown by Lagrange to be impossible, although the first real insight into the reasons came with Galois in 1832?

The abstract notion of a ring -- a set of elements with operation of addition, subtraction and multiplication -- is due to Emmy Noether?

Every square when divided by four leaves a remainder of zero or one, but never two or three?

Both addition and subtraction can be described just in terms of the number zero and the single operation 'add 1' and their properties can be derived from a short list of five Peano axioms?

If we list all the numbers in three rows as follows:
0 3 6 9 12, ... ,
1 4 7 10 13, ... ,
2 5 8 11 14, ... ,
then all the prime numbers (except 3) are evenly distributed in the last two sequences?

Every small even number can be written as a sum of two primes, but for all large ones no one knows?

Every number can be written as a sum of at most four squares or of at most nine cubes?

There are different sizes of infinity, and they can be measured by suitable 'cardinal' numbers which are subject to arithmetic operations?

The fact that the square on the long side of a right triangle is the sum of the squares on the shorter legs is said to have been useful in reestablishing property lines after the Nile had been in flood?

A program to prove the facts of Euclid's geometry without the use of any drawings, but by adding suitable axioms, was systematically carried out by David Hilbert in 1899?

An attempt to test the axioms for the Euclidean plane by assuming more than one parallel to a line through a given point in 1733 by Saccheri deduced a large number of consequences, some of them perhaps bizarre -- but none a contradiction?

By assuming more than one parallel line, Bolyai, Lobachevsky and Gauss managed to develop a non-Euclidean geometry (hyperbolic geometry)?

The development of non-Euclidean geometry represents a major change in the nature of Mathematics, from a science (of number and space) to a study of form?

There is another non-Euclidean geometry, called elliptic geometry, in which there are no parallel lines -- which happens to be the geometry of great circles on a sphere?

For Greek Mathematics, magnitudes were geometric rather than arithmetic, but western Mathematics reversed this emphasis so that Oswald Spengler in 'Decline of the West' argued that there were two different 'mathematics' as part of two different cultures?

A plane with a clockwise orientation is not the same object as one without, which shows that a geometrical 'thing' (the plane) can be formalized in different ways to give different Mathematical objects?

In three dimensions, one cannot rotate a left-hand glove into a right-hand one?

The ideas of group theory did not appear until the 19th century (with Gauss and Galois), but when fully recognized they were applied promptly to geometry by Klein and Lie?

The real number scale is complete because it includes (1) the whole numbers, (2) the rational points, (3) the irrationals such as the square root of two, and even (4) the transcendental (not algebraic) numbers such as pi and the base e of the natural logarithms?

The Sine of a number and the sine of an angle are two legally different functions, although the pedantic (but real) difference is usually ignored?

We expand the number system N to larger systems so as to solve unanswerable questions, going to integers Z to allow subtraction, to rationals Q to allow division, to reals R to allow convergence to a limit, and to complex numbers C to solve the equation X squared plus one equals zero?

REVIEW OF TWO ST FORTHS

By Bill Van Hassel   JACG
Holmes and Duckworth ST Forth
Mirage

4xFORTH
The Dragon Group

When faced with a choice among different versions of Forth for various computer systems, I have, in the past, looked at the 'extras' supplied by the different vendors, assuming that the basics would be the same in any standard version. I would first check the editor for ease of use, screen manipulation words to assist in the maintaing my source code and other extensions in support of the special features of the computer in question. Having received copies of the Holmes and Duckworth and 4xForth for review, I found that my old criteria no longer applied, all 'standard' implementations are not equal.

Neither implementation is copy protected so you may make backup and archive copies for yourself, but both companies limit the copying to your own personal use and promise to take legal action against pirates. Both are 32 bit versions of the Forth-83 standard, i.e. the stack and storage for variables and constants are 32 bits as compared to the 16 bit storage for earlier implementations for the 800 series. Both supply words to store 16 bit values where needed as parameters for system calls. However, while 4xFORTH has implemented the full set of double words (giving 64 bit precision), H&D have decided that the 32 bit precision was adequate and left it at that. In fact, H&D have only provided about 75% of what most Forth users would consider to be the minimal implementation. Notably absent were words such as .S, INDEX to mention a couple, support for vocabularies and assembler code is also missing.

There is a vast difference in the documentation supplied. H&D send the documentation on the diskette to be printed by the user. It consists of about 28 8 1/2 x 11 pages of text that briefly defines the words in their implementation. The 4x documentation is a 5 x 8 1/2 loose leaf

binder with a full inch of double sided small type pages, which in addition to a full glossary, gives examples of the words unique to the ST computers. This manual, in addition to the normal dictionary, contains sections on the editor, vocabularies, assembler, system programmers guide and an index. Both implementations contain words in their source screens that are not documented, so it pays to read or at least scan the source screens. First time users of Forth will still require one of the Forth tutorial books such as STARTING FORTH or MASTERING FORTH since both documentations presume a general knowledge of the language.

Both systems provide support for TOS files for source code. The 4x system allows 8 files to be opened simultaneously. It was unclear from the H&D documentation what their limit is. Both systems provide extensions for strings, but here again, the 4x version is more complete.

As for the editors, H&D rely upon the keyboard arrow key for moving the cursor, the backspace and delete keys for deletions and provide a few additional words to insert and delete lines. The 4x version provides these elelmentary features and also supports the mouse, insert and replace modes, split and glue for partial lines, cut and paste and a 'fail safe' feature if you accidently abort the editor.

Level 1 4xFORTH also contains support for level-a graphics for drawing boxes, triangles, diamonds, polygons and filled rectangles with 18 supplied patterns and the ability to create your own. Tektronic like absolute and relative move and draw commands, foreground and background color words, sprites and Epson FX-80 printer control words are also supplied. Another big bonus is support for RAM disk and multi-tasking.

Another advantage of 4x is speed. Their claim of being the fastest Forth ever written for a computer system based around a 'standard' microprocessor is supported by users who report that it is on the order of 4 to 6 times faster than the H&D implementation at execution time, and many

times faster at compile time. 4x is 4 to 7 times faster than Creative Solutions implementation of MacFORTH, 2 to 3 times faster than their Multi-FORTH product, and twice as fast as Harvard Softworks machine code generator running on the IBM AT. A
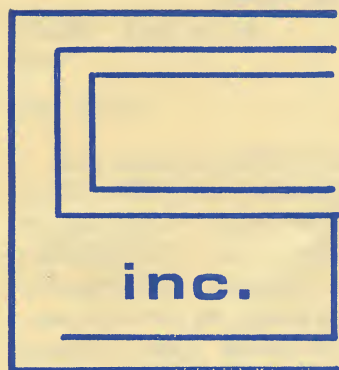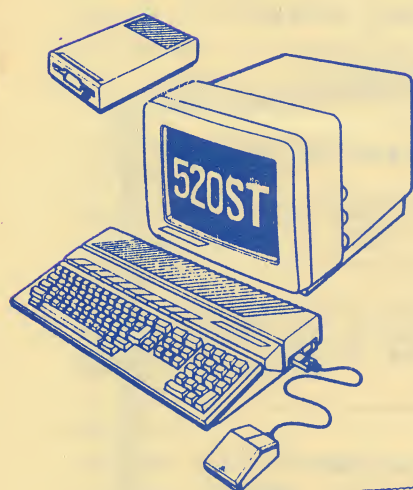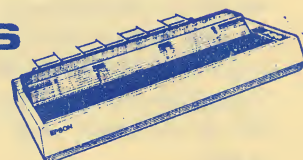
Lords of Conquest

W.E. Brandt - JACG

Although I enjoy playing games like Threshold, Shamus, and Boulder Dash, my joystick skills rarely get me past the lower levels. I seem to have much more success with multiplayer games like M.U.L.E. where strategy is also an important part of the game. Consequently when Electronic Arts brought out Lords of Conquest, I immediately went out and bought a copy.

The game is for eight bit computers with at least 48K RAM, and is somewhat similar to the board game of RISK. It is a game of territorial struggle where the object is to "conquer the world". There are 20 different world maps to choose from, and if that is not enough you can ask the computer to custom design a new map for you, or you can design your own. The game can be played by up to four players, or by one person against the computer.

The action takes place in yearly cycles. Each year in turn has phases of production, trading, movement, development, and conquest. Each year's production consists of horses, timber, coal, iron, and gold, which in various combinations can be used to build boats, weapons, and cities. The attack procedure is not complex, but it requires the use of strategy since you may need to shift horses, weapons, and boats to support an attack or shore up a defense. Weapons can only be moved using boats or horses, and horses have only a limited range.

Although the game can be played by a single player against the computer, it is the multiplayer games that are the most stimulating. The multiplayer games bring in the possibility of trading and forming alliances. You have the option of saving the game at several points; however, even at the expert level a complete game only takes about an hour.

The game does have a couple of minor shortcomings. The graphics leave a little something to be desired, and at the expert level it seems to take forever for the computer to decide where it is going to attack. On the other hand, it is hard not to like a game where when the computer is about to lose it says "I haven't a prayer...may I be permitted to withdraw", grants you the title of Lord of Conquest, and plays you a musical tribute! The slogan on the back of the game cover says "Power - you know you love it", but it should really say "Winning a challenging game - you know you love it".

Doctor Dead Speaks
Is there anybody out there?

by Tom Pluck - JACG

A long time ago, in a JACG newsletter; far, far away, there was a printout of the graphics on the JACG Print Shop Graphics Disk 1! And TWO of the graphics, TARDIS and TARDIS-CONSOLE concerned the British science fiction TV show Doctor Who. I know this is a computer magazine; I know that non-Whovians will be confused; but there's no "Personals" column (Thank God) and I wanna write! Well, it would please me greatly if any Atarian/Whovian would write to me, for some Who conversation, or for any info on Doctor Who. There is also a DOCTOR WHO picture on Eclipse Software's Print Shop Graphics Supplement #1. Now, Doctor Who deals mainly with time travel, so a very good graphics/text game could be devised with a Dr Who plot! (If any programmers are interested, write me or watch channel 8 (50 if you don't have cable) at 9 PM on Saturdays.

Well, Atarian/Whovians, another reason to write to me is if you just wonder ... Is there anybody out there ? ....
(No my nickname, "Doctor Dead" has nothing to do with Dr Who, my personality, my breath, my looks, or what I think of when I watch Friday the 13th part XXXVIII. It's just the name I used on my first Compuserve logon, and it stuck).

Programs/ Thomas Pluck
Doctor Who:86 East Centre St.
Nutley, N.J.
07110
201-667-4226

Next time: Activision, How Easily We Forget !

NOVEMBER

Editor
JACG

Dear Editor,

I remembered playing a number game several years ago, and since I couldn't find anyone around here to play I thought I'd let my Atari be my opponent. The game is called Dot-Plus. The object is to guess a randomly chosen 4-digit number. The digits 1 to 9 are used and are not repeated. When you make a guess, the response consists of dots and pluses. For each correct digit that is guessed you get a dot (.). If the digit is correct and in the correct place you get a plus (+). For example, if the number to guess is 4812 and the guess was 5718, the response would be dot,plus (. for the 8, + for the 1). If the guess was 1248, the response would be 4 dots and no pluses(....). I think you get the idea. Anyway, you have to try to get all 4 pluses (++++).

The program is a simple version of the game. The next thing I will work on is to have the computer guess my number, but in the meantime I hope you enjoy it.

About a year and a half ago ANALOG COMPUTING (Issue 29) had an article entitled CHEEPTALK. It was the plans for a speech synthesis box based on a TI chip. I finally got around to putting it together and it works fairly well. There is a bit of a monotone accent you have to get used to, though. I have written a Spelling Quiz and a Simon Says game for it and was wondering is anyone else had built it or might be interested.

Lastly, has anyone done any programming for the Atari light pen. Bill Martin was able to give me a couple of little test programs, but I would like to know of other programs and uses. Also, I would like to know of any programs that will print pictures made with the pen.

Scott Gardner

```
100 DIM G(4),N(4),A$(30)
110 OPEN #3,4,4,"E:"
120 PRINT "LET'S PLAY A GAME OF DOT-PLUS"
130 FOR I=1 TO 4:N(I)=-1:NEXT I
140 FOR I=1 TO 4
150 X=INT(RND(0)*9+1):REM RANDOMLY CHOOSE A DIGIT
160 IF X=N(1) OR X=N(2) OR X=N(3) OR X=N(4) THEN 150:REM
NO DIGITS ARE REPEATED
170 N(I)=X:NEXT I
180 NG=0
190 PRINT "ENTER YOUR GUESS"
200 INPUT #3,A$
210 NG=NG+1
220 FOR I=1 TO 4:REM GET THE GUESS
230 G(I)=VAL(A$(I,I))
240 NEXT I
250 PLUS=0:DOT=0:REM COUNTERS FOR CORRECT DIGITS
260 FOR I=1 TO 4:REM GET THE GUESS
270 IF G(I)=N(I) THEN PLUS=PLUS+1:GOTO 310:REM RIGHT DIGIT
IN THE RIGHT PLACE?
280 FOR J=1 TO 4
290 IF G(I)=N(J) THEN DOT=DOT+1:REM RIGHT DIGIT IN WRONG
PLACE?
300 NEXT J
310 NEXT I
320 IF DOT>0 THEN FOR K=1 TO DOT:PRINT ".";:NEXT K
330 IF PLUS>0 THEN FOR K=1 TO PLUS:PRINT "+";:NEXT K
340 PRINT " "
350 IF PLUS=4 THEN PRINT "GOOD GAME, ONLY ",NG,"
TRIES":END
360 GOTO 190
```

BARGAIN & SALE

Gary Gorski - JACG

With the holidays soon upon us, we must all look for ways to stretxh that Almighty dollar. From time to time the JACG is presented with special deals or offers that are regularly made to special interest groups ("SIG's"), volume buyers, and user groups. As I become aware of such deals, I will present them to the group by way of this column. If you hear of any special deals, or if you know of any dealer or distributor that offers volume/group discounts, please let me know. Also, if you are interested in purchasing a certain item or product (computer paper, ribbons, etc.), please drop me a line, or give me a call.

On with the SPECIALS...

For the trusty 8-bit user we have a good deal on an 80 column word processor that Mary Russomano used at the ATARI SAFARI back in September. We need a minimum of 12 purchasers to get a 30% volume discount. If you need any more information on this product, please don't hesitate to contact Mary or me.

As for ST users, please read Bill Martin's column in order to find out more information on the "Mac Sac", which is now being offered.

The last item that I have any information on this month is for subscriptions to the New Aladdin. John Henson, the Editor-in-Chief of the New Aladdin, has offered to rebate a percentage of the subscription price to the JACG treasury. The rebate will be for new subscriptions made through the club. This offer will only be good on orders received before Friday, January 9, 1987. If you missed the October meeting's presentation by John, you owe it to yourself to talk with someone who was there! Please let me know as soon as possible, if you are interested in a subscription, so that I can complete the paperwork. As usual, if you have any questions, answers, or comments; -lease feel free to give me or the HOTLINE a call.

Thanx - Gary

```
Ctrl-S Stop    Ctrl-C Abort
```

Please switch to ASCII mode,
capture this file, and print
it to your printer.

To toggle between ASCII and
ATASCII switch to mode desired
and press RETURN at the prompt.

All commands are words. Most
words also have macro keys that
will type the words for you. You
can either type out the word, or
press its corresponding key. Use
whichever method you are most
comfortable with. If you are
going to use words, you will only
need to type the first 3 letters.

INDEPENDENT COMMANDS

```
MENU      -Summary of commands
HELP      -This file
STATUS    -Your current status
USERS     -People using this BBS
CHAT      -Summon system operator
BULLETINS -News information
LOGOFF    -Exit this BBS
```

DATABASE COMMANDS

```
DATABASES -Display database names
VIEW      -Display a database
```

[specify a database after VIEW]

MESSAGE BASE COMMANDS

```
MSG BASES -Display message
           base names

READ      -Read messages
SCAN      -Show message titles
EDIT      -Correct a message
KILL      -Delete a message
```

You must specify one of the
following parameters...

```
ALL
NEW
ALL   in [MESSAGE BASE NAME]
NEW   in [MESSAGE BASE NAME]
5     in [MESSAGE BASE NAME]
5-7   in [MESSAGE BASE NAME]
5-    in [MESSAGE BASE NAME]
LAST 3 in [MESSAGE BASE NAME]
```

```
POST      -Post a message
```

You must specify one of the
following parameters...

```
TO ALL in [MESSAGE BASE NAME]

TO [USER NAME] in
        [MESSAGE BASE NAME]
```

```
OPEN    -Check your mailbox
SEND    -Send a letter to user
```

Specify ALL or NEW mail for OPEN
    and   TO [USER NAME] for SEND

SEPARATE MODULES YOU CAN RUN

```
SUB-CMDS  -Independent SubSystem
FILE-TRAN -File-Transfer program
GAME      -Game/Games to play
```

WHEN POSTING A MESSAGE...

```
/L  -List your message
/L# -List with line numbers
/D  -Delete a line
/I  -Insert a line
/E  -Edit a line
```

You should specify one of the
following after each command...

```
5      5-7  or   5-
```

```
/T  -Change title of message
/R  -Restart message
/S  -Save message
/A  -Abort message
/H  -Help
```

FILE-TRANSFER SUB-PROGRAM

```
DIRECTORY -Display files
           available for download
```

You can specify [LANGUAGE]
            or [FILETYPE]

```
DOWNLOAD  -Receive file from BBS
```

You must specify [FILENAME]

```
UPLOAD    -Send file to BBS
```

You must specify " FILENAME "
    [LANGUAGE] [FILETYPE]
and [ACCESS LEVEL] you think
it should be set at

```
PRINT     -Send TEXT or DOC file
           (non X-Modem)

BBS       -Return to BBS program
```

HELPFUL HINTS

By separating commands with
either a . or a , you can
make them work independently.
Example -

Read New in General, Post msg
  in General to All, Status,
  Users, Databases, Logoff.

If you want to erase your input,
type CONTROL-X as opposed to
backspace.

Using your macro keys, you can
duplicate the above input by
typing...

^R ^N General, ^P General to ^A,
^T, ^U, ^D, ^L   "^" =Control

This example is much less time-
consuming, however, the first
example is easier to understand.

Carina BBS - Command Menu

Command	Macros	Function
Msg Bases	Ctrl-W	Show Msg Bases
Read	Ctrl-R	Read Messages
Scan	Ctrl-Q	Scan Messages
Post	Ctrl-P	Send Msg to User
Edit	Ctrl-E	Edit Current Msg
Kill	Ctrl-K	Delete a Message

```
: Send     Ctrl-S Send E-Mail     :
: Open     Ctrl-O Check your Mail  :
: Feedback Ctrl-Y Msg to SysOp     :
: Databases Ctrl-D Show Databases  :
: View     Ctrl-V Print a Database :
: Bulletins Ctrl-B Bulletin File   :
: Status   Ctrl-T Display Status   :
: Users    Ctrl-U Show BBS Users   :
: Chat     Ctrl-C Summon SysOp     :
: Menu        ? This Menu          :
: Help        / Help File          :
: Logoff   Ctrl-L Exit BBS         :
: Sub-Cmds Ctrl-I Separate System  :
: File-TrG Game/Games       :
:                                  :
: All      Ctrl-A                  :
: New      Ctrl-N                  :
:          Ctrl-X Delete Input     :
:          Ctrl-S Pause Printing   :
:          Ctrl-C Abort Printing   :
:                                  :
: (c) 1986 Carina Software Systems :
```

The Frank Pazel Award

By Mary P. Russomano - JACG

All of the JACG members have been touched by Frank Pazel in some way. Certainly all of us have read the JACG newsletter which Frank put together each month for approximately three years until he passed away last summer. Those who attended the monthly meetings cannot forget his brilliant sense of humor as he urged us to "give a bit" to the newsletter. Others will recall the many programs he, commissioning his "number one son," contributed to the JACG library, or the Frank and Tom Pazel PRO*PLUS LOADER, BETTER MOUSETRAP SOFTWARE, an automatic font loading utility for the Prowriter printer. Needless to say, the JACG would like to perpetuate his memory, an outstanding example of excellence, humor and service, with this annual award. The Frank Pazel award, a plaque to be bestowed upon the individual (local, national or international) who makes an outstanding contribution to the computer field, will be awarded for the first time in March of 1987. Members are asked to submit their nomination by describing the qualities of the nominee in a single paragraph. The final decision will be made by a committee consisting of 2 officers, 2 members at large and myself. Please send your nominations to Mrs. Mary P. Russomano, C/O Deerfield School, Troy Lane, Short Hills, New Jersey 07078.

CARINA - THE BETTER BBS

Presenting the most powerful bulletin board ever written for the Atari 8-bit computer. The Carina BBS is absolutely the most expandable bulletin board for your Atari. It has features that you will find on most bulletin boards plus many other features that make telecommunications easier, more fun, and a lot less monotonous.

WHY IS THIS BBS SO MUCH BETTER?

The power of this system is mostly attributed to the Modem Operating Environment. It makes possible the ability to run BASIC programs WITH LITTLE OR NO MODIFICATION on your bulletin board. It also allows you as the Systems Operator (SysOp) of the Carina BBS to drop into BASIC ON-LINE at any time and make modifications to your program from across the country if need be. No other Atari bulletin board has this feature.

YOU MEAN I CAN CHANGE THE PROGRAMS?

Yes, the Modem Operating Environment eliminates the need to perform modem operations. The bulletin board is written in understandable BASIC and is, in fact, designed with modification in mind. The Carina BBS is also module based. This means you are no longer restricted by the memory of your computer, but rather by the amount of on-line storage on your disk drives and your ramdisk. The Carina BBS itself is not 1 but 7 separate programs. It is a massive system that can be expanded beyond your imagination.

WHAT PROGRAMS COME WITH IT?

The modules included are: The waitcall module which performs user logon/logoff functions, the bulletin board itself which controls all message bases and databases, the file-transfer module with X-Modem upload/download transfer protocol, the message editor (with extensive word processor-like functions), the SysOp commands with the most powerful functions available for any bulletin board on-line, the sub-commands module which contains miscellaneous extra functions, and an on-line trivia game. The Carina BBS has a total of 44 commands including 17 SysOp functions. It is easy to add any other modules of your own, plus there is plenty of room to add any other functions in different modules.

DOES THE CARINA BBS USE ONE-LETTER COMMANDS?

No, the Carina BBS uses word commands as opposed to single letters. For example, typing "Read New" will show you all new messages since your last call. If you prefer just typing one letter, that can be done also. Each command has a macro key that will type the words for you. Typing Ctrl-R Ctrl-N will duplicate the above input. You can also stack more than one command on a line. It is more powerful and a lot easier.

WHAT EQUIPMENT DO I NEED?

To run the Carina BBS you will need an Atari 8-bit computer, at least 1 drive, and a modem. A printer can also be used. The Carina BBS will work with most DOS's and many different interfaces and modems. The Carina BBS is known to work with the Atari 850 interface, the ATR 8000, the Hayes Smartmodem, the MPP 1000C/E modems, and the Q-Modem. It also supports 1200 and 2400 baud.

WHAT ELSE CAN IT DO?

• Ascii and/or Atascii modes supported
• Virtually unlimited message bases and databases
• Self-compacting message bases eliminating the need for constant maintenance
• Automatic validation and access-control configuration allowing the Carina BBS to run by itself
• Allows editing of previously posted messages
• True Electronic-Mail
• And MUCH more

There really isn't enough room to tell you all that the Carina BBS can do. The best way to find out what it can do is to call 305-793-2975 for an on-line demonstration or write for more information.

HOW CAN I GET ONE?

To order, send check or money order in the amount of $69.95 (tax and shipping included) to:

Carina Software Systems
12390 57th Road North
Royal Palm Beach, FL 33411

An Article for the Newsletter

Mark Knutsen - JACG

I am about to prove that anyone can write an article for the newsletter. My intention is not to belittle the efforts of the many fine authors whose work graces these pages, but rather to incite those of you who have never written an article to repent -- before it's too late!

Point one: You belong to this club because you own or use an Atari computer.

Point two: Either you own a word processor already, or you can purchase one for a minimal sum.

Point three: You have something to say that the rest of us want to hear, therefore...

"Wait!" you say. "I do?"

Yes, you do. No matter how trivial or uninteresting you think your personal computing experience is, the fact remains that it is an experience; an experience that the rest of us can learn from.

"Yes," you protest, "but I could never write a whole page about the time my disk drive blew up, and I only know how to program in BASIC, and I haven't bought any new programs lately, and..."

Stop making up excuses. Look, this article is a quarter-page long already, and I haven't even begun on my main topic! The main reason behind this is that I don't have a "major topic". I decided that I should write an article this month, but couldn't think of a single subject to cover in depth. Therefore, I am about to spew forth random bits of information and advice, in whatever order I think of 'em. Hope that some of this is useful to you.

Saving a backup copy of this file reminded me of the new resident of my disk drive: the US Doubler from ICD, Inc. If you own a 1050, buy one of these. Quite simply, it doubles the amount of information that you can store on a disk, and triples the drive's speed. It comes complete with SpartaDOS, a resident DOS that won't delete your BASIC program from memory when you call it, and two reference manuals. No longer will your friends be able to say "Yes, your Atari disks load faster, but I can store 180K per disk on my Commodore!" Now you can, too.

While I'm on the subject of hardware, does anyone remember the good ol' ATR-8000? This beauty makes a great printer buffer and disk drive interface, even if you don't want to use its CP/M capabilities. Look around, you may be able to find someone selling a used ATR for a reasonable price.

I can't resist inserting another plug for the XM-301 modem. With the price down in the $30 range, what's stopping you from buying one? A modem gives an incredible return on your investment in the form of literally thousands of free public domain programs that can be downloaded from a Bulletin Board System near you. Also, the boards are the best place (next to a JACG meeting, of course) to find helpful advice on a wide range of subjects. Look me up the next time you call a New Jersey BBS. My handle is "Pseudo Nym".

Other things you should buy: a disk notcher and dust covers. The $5 disk notcher (which is, essentially, a square hole punch) allows you to use the flip side of your floppys, and the dust covers keep your equipment neat and (you guessed it) free from dust. Also, don't forget your JACG membership renewal; I don't have to tell you what a good investment that is.

Perhaps the best investment of the lot is one that protects your system from voltage spikes. Buying a $20 surge suppressor for your computer equipment could save hundreds of dollars in the future. Mine has a circuit breaker and an on/off switch that I keep off unless the computer is in use; this saves wear and tear on the various power supplys.

It seems that this article is developing into a discussion on computer accessories. In that case, I should mention a word or two about floppy disks. Disks should be bought in bulk, perhaps fifty or one hundred at a time. Yes, you eventually will need that many. Remember two things: never pay more than a dollar per disk, and always figure in the cost of disk labels and sleeves when comparison shopping.

Much of the same advice can be applied to the purchase of printer paper, as well. Buy in bulk, and comparison shop. You should be able to find a carton of 2,400 or more sheets of eighteen or twenty pound (white) computer paper (the kind with the "laser-perf" perforations) for less than a penny a page. If buying this much paper or that many disks at one time seems overwhelming, find a friend or two and split the cost.

Perhaps I really could tie all of this advice together with one underlying thought! This comes in the form of more advice: remember that to enjoy computing, you must buy more than a computer. The cost of accessories like disks, paper, and various other doodads amounts to a substantial portion of your computing investment. Hardware and software devices that make your computer more powerfull and your computing experience more enjoyable also add to the cost. Choose your investments wisely. Be a smart shopper.

There. A whole page. I did it! I apologize for the sporadic nature of my writing this month, but even so, I think my point is made. If I can do it, so can you.

D & D on a Disk
or,
Wizard's Crown
by Tom Pluck - JACG

Ah, the 'board' game that spawned a frenzy years ago is now somewhat more quiet, but Advanced Dungeons & Dragons still lives. Today- in the books... OR ON A DISK! Yes, Wizard's Crown from Strategic Simulations, Inc., is the most realistic role-playing game I've ever seen, with nice graphics and lots o' fun!

The game begins at The Crossed Swords Inn, where eight ready-made characters await your commands, or you can throw them out and introduce new characters. The idea is to build up your characters by ridding the town of thugs, thieves, the assassins' guild, and the brigand patrols that rob the merchants. You get gold from the town leader (16 gold) for this, and you take the loot from the enemy (magic weapons/armor, scrolls, potions, valuables, and weapons) and sell them at the market and you gain gold. Then you can buy training, weapons, and potions.

At the Inn you can REST THE ADVENTURERS (40 copper apiece per day), GREET NEW ADVENTURERS (create a character), TELL THE MINSTRELS OF YOUR DEEDS (save game), CHECK A CHARACTER (find out the character's injuries, money, weapon skills, items & experience), IMPROVE A CHARACTER (spend experience points on dexterity, strength, life [hitpoints], and various skills), HAVE A CHARACTER QUIT THE PARTY, VIEW ITEMS STORED AT THE INN, OUTFIT A CHARACTER (change a charcter's icon and/or name), MOVE MONEY AROUND, or EXIT THE INN. The Inn is useful for rest and storage, and you'll find yourself returning if you want your characters to work to their potential.

Characters can either be a fighter, a thief, a ranger, a priest, a sorcerer, or any combination of the above. All except sorcerers should be part fighter or ranger- especially priests. Rangers can use spears and bows, thieves can only use daggers (so make them ranger/thieves), priests can only use daggers (again they should be ranger/ or fighter/priests), fighters can use all weapons, and sorcerers can only use daggers (DO NOT mix sorcerers with ANY other class; magic is a useful weapon).

Ah, weapons. It's a nasty world in Arghan. The weapon skills are SWORD, AXE, MACE, FLAIL, SPEAR, BOW, CROSSBOW, CLOSE COMBAT (DAGGER), AND SHIELD. The swords: rapier, shortsword, scimitar, broadsword, longsword, claymore, and greatsword. The axes: handaxe, battleaxe, and greataxe. The maces: mace, morningstar, staff, and maul. The flails: flail and large flail. The spears: spear and heavy spear. The bows: shortbow and longbow. The crossbows: light crossbow and heavy crossbow. The shields: buckler and shield. Close combat refers to fists and daggers.

Well, armor is necessary (if you were to be attacked by hobgoblins, trolls, and assassins, you'd opt for protection, too) and there's a nice choice of it. You've got leather, cuirbolli, ring mail, brigantine, chain mail, scale armor, and plate mail, in order of strength to use and protective ability. Magic armor is often looted off of monsters, armor potions are found, and the spell ARMOR can be cast.

I have encountered over 27 monsters, and certainly there are many, many more. The great thing about combat in Crown is that you can fight out a detailed, complex, tactical battle, or if you're tired of fighting (remember Ultima IV?), the computer will resolve the battle in a few seconds. But with quick combat, magic scrolls, jars, bottles, and vials are not used, thus enndangering your character. So, I always use tactical combat with tough guys like veteran adventurers (and adventurers for that matter) and golems.

Magic; only sorcerers can use it, but there are 22 spells of varying difficulty and power cost. They are: Countermagic (Halves enemies' spells), Foxfire (provides light for 1 battle), Magic Bolt (hits enemy like a shortbow arrow), Night Vision, Unlock, Invisibility, Reveal Enemy (stops enemies' invisibility), Wound (hits enemy with physical magic), Magic Protection, Missile Protection, Paralyze (has a 25% chance of paralyzing each enemy), Darkness (blinds all enemies so the party can escape), Poison (slowly kills the enemy; unstoppable), Change Terrain (turns unoccupied space into clear, wall, or rubble), Shatter (destroys enemy's weapons), Lightning Bolt, Life Blast, Dispel Magic, Life Steal (Takes enemy life and gives it to the sorcerer), Mass Invisibility, and Fireball.

Boy, I must have bored you! Sorry. Well, the actual quest is to find the wizard's crown and return it to the king. It is located in Tarmon's castle, far in the evil, monster-infested ruins of Arghan. You can send out the ready-made characters (once built up) and do very well- I have six originals and two new ones- another swordsman with a demon claymore (boy, he raises heck!), and I replaced the sorceress (yes, with another sorceress) because she died. The game is excellent, very realistic, and probably the best thing to come to role-playing since Unearthed Arcana. I believe that you'll think that you're $37.95 was not wasted, because there are five levels of play, just in case you solve it, so you can try your luck at #1 (The peaceful town is like New York at 1 AM, and you're wearing more jewelry than Mr T and Sammy Davis Jr. combined).

compile speed of 125 to 200 blocks per minute would be considered to be VERY fast for the average implementation of Forth. 4x will compile over 600 blocks per minute from a hard disk, and over 1000 blocks per minute from ramdisk. It may have been speeds like this that led ST Applications to comment that it was the fastest compiler they'd ever seen.

The H&D support for the GEM operating system consists of 5 words, AESCALL, GDOS, TRAP13, TRAP14 and VDICALL. These are just listed with their stack requirements. The GEM interface in 4x is available in their Level 2 package at an additional cost. The support here is rather extensive, specific words are provided for opening, moving, sizing windows and drop down menus, just to list a few. Because this level is still under development the documentation is supplied on the diskette and is almost as large as the full H&D document. As an extra bonus, the Dragon Group has included the public domain version of the Microemacs editor. This is a programmer's editor which is becoming common on many microcomputers and has been included for those who prefer to use stream files as source for Forth.

Support for 4xFORTH is by the authors and the first update is promised free to registered users. H&D support will not be provided by the authors, instead they have arranged for support from the technical people at Mirage, who, incidently use 4xFORTH for their software development.

While the lower price of the H&D implementation may seem attractive to the more budget minded, I feel that they would either give up on the language or eventually spend the additional money for the 4x system. Save yourself the aggravation, go for the Level 1 4xFORTH and if you really want to take full advantage of the GEM windows and menus get the Level 2

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Looking for good software (or a hardware modification), to assist new homeowner with painting, washing windows, or cleaning rugs. Must also do general home repairs.

Please contact:
Gary Gorski
IMMEDIATELY

Art Shop

by Forrest A. Blood IV - JACS

Broderbund's Print Shop is a powerful program which allows you to easily create cards, banners and signs, although it does have a few limitations. Broderbund failed to include a way of deleting your unwanted creations. Broderbund also decided to invent their own method of storing and retrieving files, rather than using the standard Atari (DOS 2.0S) disk file structure.

While Broderbund has included almost every conceivable option necessary to create printed matter, they lacked the foresight to envision Print Shop being used for anything except creating fancy stationary. My program, Art Shop, extends the usefulness of Print Shop by adding several features, allowing it to be used as a video display tool. Art Shop will convert back and forth between Print Shop's SCREEN MAGIC files (which are stored with "Print Shop" DOS) and Datasoft's Micro-Painter [or compatible] files (which are stored with Atari DOS 2.0S). Art Shop also provides you with a method of manipulating Print Shop data by deleting files, renaming files, listing file names on a printer and formatting disks.

By giving you the flexibility to convert pictures between Print Shop and Micro-Painter, the value of each program is considerably enhanced. Some new possibilities include:

1) Add colors and patterns to your Screen Magic files, by loading the converted picture into Micro Illustrator.
2) Superimpose captions onto pictures you've already created with Micro-Painter, by loading the converted picture into Print Shop.

3) Add captions to digitized pictures you've stored with Computer Eyes video acquisition system, by loading them into Print Shop. The final image could then printed on transfer paper and ironed onto a T-shirt!

4) Create colorful title screen sequences for movies you record with your VCR, by turning Print Shop files into Micro-Painter files. These screens could then be displayed or further manipulated by another graphics program.

editor's note:Thanks go to JACS and Forrest Blood for making this program available to us. It is now available (with documentation) from the JACG Disk Library.

The tight connection between the algebra of complex numbers under addition and multiplication and the geometry of the plane under translation, rotation, and expansion shows that the imaginary number i now means 'rotate by ninety degrees'?

The simple view that Mathematics is the science of number, space, time and motion was made obsolete in the 19th century by complex numbers, non-Euclidean geometry, n-dimensional geometry, non-commutative multiplication in groups and quaternions, infinite cardinal and ordinal numbers, and the uses of sets and logic?

Real numbers provide an algebraic formulation for one-dimensional geometry, complex numbers for geometry in two dimensions, and 'quaternions' for four dimensions (with one real term and three 'imaginary' terms) but multiplication is no longer commutative?

Galois theory showed the usefulness of group-theoretic and abstract methods, but expositions published as late as 1925 were wholly confusing, and it became perspicuous only with the advent of modern abstract methods in algebra?

Modern computers have made big matrices manageable, but many current texts in linear algebra bury the ideas under a morass of muddled matrix manipulations with no understanding of the concepts?

The surface of a rectangular box is a two-dimensional manifold as well as a compact and connected topological space which is homeomorphic to the surface of a sphere?

Geometry is not just a subdivision of a subject within Mathematics, but a means of turning visual images into formal tools for the understanding of other Mathematical phenomena?

The calculus, which dominated the development of Mathematics for at least two centuries, was developed by Newton in order to tackle problems of mechanics, especially those of celestial mechanics?

The full development of the subject of 'Newtonian mechanics,' with its use of extended bodies and fluid mechanics, required more than a century and was advanced by many noted mathematicians, especially Leonard Euler (1707-1783)?

The function that gives 0 when x is rational and 1 when x is irrational produces a legal function that, however, jumps incessantly from value 0 to value 1 and back, cannot be graphed, and is nowhere differentiable?

The hard-to-prove Jordan curve theorem asserts that every simple closed curve divides the plane into two parts (an inside and an outside), and the search for higher dimensional analogs has been a major motive in algebraic topology?

A 'topological space' may be defined equally well by way of open sets, closed sets, closure, or neighborhoods -- showing that one idea has many formulations?

The fundamental theorem of arithmetic states that each rational number N can be written uniquely as a product of prime numbers?

Hilbert's formulation of the axioms of plane geometry requires the theory of sets?

A Mathematical proof is rigorous when it is written out in the first order predicate language as a sequence of inferences from the axioms of set theory, with each inference made according to one of the stated rules?

There are at least four alternative axiomatizations of set theory, known as Z, ZF, ZFC, and ZBQC (Zermelo, Fraenkel, bounded comprehension, and choice axioms)?

The full development of rigor came in modern times in successive steps embracing rigorous calculus, complex analysis, calculus of variations, Hilbert plane geometry, use of axiomatic methods, formulation of symbolic logic, and axiomatization of set theory?

The future may see additional axioms for sets or alternatives to set theory, but the notion of a rigorous proof as a series of formal steps in accordance with prescribed rules will remain?

In 1931 Kurt Godel showed that Hilbert's plan (to prove that Mathematics contains no contradictions) cannot be reached?

The forms of Mathematics which underlie the facts appear in many stages: rules of calculation, differentiation formulas, rules for estimation and approximation, axiom systems for arithmetic and geometry, rules for logical inference, axioms for abstract algebraic and topological objects, and axioms for sets?

A scientific theory can be falsified by factual data, but a Mathematical theory cannot be so falsified?

It has been claimed that the one notion of modern Mathematics familiar to the man in the street is the idea of coordinates: The tenth floor at 329 West 15th Street?

Mathematics has many famous unsolved problems, including the Poincare conjecture in dimension 3, the Riemann hypothesis for the zeros of the zeta function, and the Goldbach hypothesis that every even number is the sum of two primes?

Two mathematicians have claimed (New York Times, Sep 30) that they have solved the Poincare conjecture, but the 123-page proof (by Colin Rourke of the University of Warwick, England, and Eduardo Rego, of the University of Oporto) has not yet been authenticated?

The emphasis on solving problems is an effective counterweight to the emphasis on structure and axiomatics in Mathematics?

The introduction of analytic geometry (using coordinates) by Descartes provided for algebraic proof of geometric facts, but the geometric facts are independent of the choice of coordinates?

If in an algebra of sets one deletes all reference to elements of the subsets, one reaches the notion of a Boolean algebra?

The bizarre phenomenon of a single solitary wave was first observed about 1840, when Scott Russell chased such a wave moving down the Edinburgh-Glasgow canal, and that later several authors found model equations which would predict such waves?

ST COLORING BOOK

By Bill Van Hassel -- JACG

From The Dragon Group
148 Poca Fork Road
Elkview, WV 25071

So you bought the ST and received the early version of NeoChrome but even with a computer assist, your artistic talent leaves much to be desired. Well, help has arrived from the Dragon Group in the form of the ST Coloring Book series. This series comes in sets of two diskettes each for $34.95 list. Each diskette contains 10 full screen NeoChrome picture files. These picture files contain drawings that you can cut and paste into your own picture and then modify, add to or paint as you desire. These 'books' will be of interest to DEGAS and TYPESETTER ST users also, since both of these programs include a program to convert NeoChrome files to their formats.

The first set, THE SAMPLER I & II, contains outline drawings of birds, horses, rockets, planets, house plan symbols and much more. The second set, THE WORLD I & II', is also available now and contains maps of the world. This set would be great for school reports, you could load the desired map and then color it in to show population density, natural resources or whatever the assignment required.

A third set, BORDERS, has been planned and may be ready by the time you read this review.

One engineer came up with the notion of a fuzzy set -- a set where a statement about membership may be neither true nor false, but in between -- but most of the applications turn out to be just extensive exercises?

Mathematics is not literally a science (because its results cannot be falsified by fact or experiments) so the question 'Is Mathematics true?' is out of place: Mathematics is not true, but its correct results are certain?

Some mathematicians are natural analysts (good at approximations), some are algebraically minded (manipulations of formulas), some are inspired by applications, and some have well developed geometric intuitions?

If you are looking for a field or a tree or a branch or a chain or a ring you can find them all in the (subject index of the) new book 'Mathematics: Form and Function' by Saunders Mac Lane (Springer-Verlag, NY), which is where I found all these and many other beguiling insights?

HARDWIRE YOUR KEYPAD REVISITED

by R.P.Mulhearn JR.

After opening a 130XE to put a keypad in as per my JULY 86 article, I found ATARI pulled the expected trick and changed the pinout - key combinations. If you followed my article your keypad wouldn't seem to work with a 130XE even though everthing was wired correctly.I goofed but there is only a minor change to make it work and dosen't affect compatability with the 800 or 800XL.All you need to do is wire the DB 15 female socket according to the following :

DB15 PIN	800/800XL	130XE
1	1	13
2	2	14
3	3	12
4	4	15
5	5	7
6	NC	NC
7	7	5
8	16	17
9	17	16
10	10	19
11	NC	NC
12	12	8
13	13	9
14	14	10
15	15	11

From the rear the DB 15 looks like this

13   14   12   15   7   NC   5   17
  16   19   NC   8   9   10   11

The substitute pin-function chart with the socket in the 130XE reading left to right as viewed from the component side is:

Pin 130XE	FUNCTION
1	NC
2	LED
3	LED,START,SELECT,OPTION,RESET
4	SPACE,HELP,H,J
5	SPACE,N,M,,,.,/,INV
6	HELP,SHIFT,Z,X,C,V,B
7	CTRL,J,K,L,;,+,*
8	M,B,K,G,I,T,8,5
9	4,9,R,O,F,L,V,,
10	.,C,;,D,P,E,O,3
11	/,X,+,S,-,W,CLEAR,2
12	U,I,O,P,-,=,RET
13	7,8,9,0,DEL,BRK,CLEAR,INSERT
14	ESC,1,2,3,4,5,6
15	TAB,Q,W,E,R,T,Y
16	CAPS,ESC,DEL,TAB,RET
17	1,insert,Q,=,A,*,Z
18	A,S,D,F,G,H
19	6,7,Y,U,N
20	BRK,CTRL,SHIFT
21	START
22	SELECT
23	OPTION
24	RESET

GIVE A BIT!!
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NOISE from NOYES

Hardware Modification

D.B. Noyes - JACG

I'm no electronics expert. I wouldn't know a volt from a bolt or an amp from a lamp. But I do like to cook. To cook, you say? What does that have to do with electronics or computers? The answer is simple (at least to me!). To cook, I simply read a recipe, get the necessary implements and ingredients, and follow directions - simple! Well, isn't it the same with electronics? Just look at the article, get the necessary components, and follow the instructions - easy!

About a month ago I saw an article from another newsletter which I intended to reprint in this month's newsletter. It was a 1050 Disk Drive modification requiring only three components (besides tools, wire, tape and solder). These components were: a switch, a bi-color diode, and a resistor. All available from a chain electronics store for approximately $3.00 and change. The modification's purpose was to enable one, by using the switch, to have three possible states for the drive:

1) Normal - looks for notch on disk

2) Write protect - protected all the time regardless of notch

3) Write enable - write regardless of notch

The state would be indicated by the condition of the diode (red, off, or green).

Just what I'd been looking for! Simple! Three components. Easy to understand instructions. I purchased enough components for both of my 1050's - took the front bezel into my garage, and drilled two holes (one for the switch and one for the diode). Of course, in the best Noyes tradition, I had to go back to the store to purchase diode holders (the article didn't specify how an LED (that's electronese for "light emitting diode"). I then mounted the switch and holder onto the bezel and proceeded to the bedroom, er - I mean, my electronics laboratory. The bed is not a bad work surface (as long as the wife doesn't find the burn marks the soldering iron left!).

The instructions said to locate connecter J-11 which had four wires coming out of it. This was going to be a cinch - cut the wire going to from #3 (it leads to the sensor) and connect them to appropriate terminals on the switch - done - what a breeze. Next, tap into the wire from #2 of J-11 (a little more difficult - I cut it and added a piece of wire to make the tap easier (this was the "ground" which went to the resistor, diode and switch - no real problem. Now simply make the remaining connections and the hard work is done - beautiful! re-assemble the drive - oh, oh; that diode holder butts a little against the side, and where do I put all of this wire - no problem - a little sweat and a little (very little) force, and presto - everything is done!

OK, let's fire this baby up! Whirr, snark, whirr -

sounds great - boot DOS. Let's try the three states. Problems. It'll protect always in two states, and react to the notch in the third (and the whole point of this exercise was for me to be able to write on the backside of a disk without cutting myself with an Exacto knife!). Open it up again Noyes, you obviously did something wrong. OK, keep cool, after all the most you might have done is mess up a $150.00 drive - nothing serious! Triple check. Everything as instructed. Well- suppose (and I know I didn't) when you cut the two wires you lost track...well, reverse them just in case. Done, back together. Turn on and boot DOS - great, all three states now write-protect. I've just invented a read-only disk drive with a bi-colored LED on it!

Panic sets in (in normally cool and collected Noyes? You bet!). A call to Bob Mulhearn (a hardware expert and secretary of the JACG). My worst fears are realized. Bob can't understand how the writer of the article was to achieve the desired result. But hadn't I read Bob's article on a similar modification in a prior newsletter? No, I confessed, in November of 1985 drive modification was the farthest thing from my mind. Search the attic and the basement - where are the back issues? Aha, found it.

Now the fun. Open up the drive, disconnect all of the modification, put the drive back together, and fire it up. BIG trouble. Still only read only. I see BIG $$$ going out the window. Call Bob again (or is it again, again and again?). Maybe it's the sensor (by the way, it turned out that the wire in the article represented as going to the sensor, didn't), well, if it's the sensor or the emitter - no big loss, Bob's modification will give me write protect all of the time, or write enable all of the time.

OK, I'm in deep as it is, might as well do Bob's modification. It works with the leads off of the sensor. Work done. Bottom line - It works! I now have write or protect capability via switch (probably blew the emitter or sensor in the process of doing the first and unsuccessful modification), but I now have the two states that I wanted in the beginning, anyway.

The moral of the story should be obvious. Unless you're schooled in electronics and have an understanding of the hardware specifications, check with an expert in the user group before you jump into high gear. It could save you a lot of work and anguish!

From the Archives

ANALOG issue # 5 (1982) contains the following information relative to a price cut by ATARI: "With the increased production of ATARI 800's comes a reduced list price. The old cost of $1080.00 has now become $899.99."

I guess I'd better hold off on getting an ST! ed.

Buyer Beware

Joseph S. Kennedy - JACG

Recently a perplexing problem has been arising. We Atarians are overjoyed to be welcomed into the future world of computing with the 130XE, the 1050 and the loads of new software for them. But therin lies the problem. A few months ago I reported on the new Atari Planetarium. I raved about the program then and I still rave about it today. But let me also warn you that you can't use it if you don't have an XE or an 800XL (I don't think that a 1200XL works with it). But it doesn't stop there; if your 1050 is modified be careful. There is at least one case that I know of that a US Doubler prevents the Atari Planetarium from running with a 1050. It also will not run with an Indus drive that is set for dual density.

To widen their sales base software producers are offering their products for several different types of machines using the same packaging. This is a great way to get good software at a lesser price due to the manufacturer's savings. The problem arises when the manufacturer does not indicate which features that are touted on the package are available for which particular machine. Lest this sounds like a hypothetical case just look at Chessmaster 2000 which lists several features that are not implemented on the 8-bit machines.

What all this really means is that you must be careful when you buy software. Read the package carefully, including the very small print. Unfortunately this is where you usually might find out if the software will work on your system. Have the dealer try it on a system similar to yours or agree that if it doesn't run on your system you'll get you money back. And finally complain to the offending manufacturers. They do listen to the complaints and it does help make things better in the future!

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FREE
ALADDIN MAGAZINE

J.Kennedy - JACG

Thanks to John Henson, Editor- in Chief, of ALADDIN Magazine you can get a free subscription to ALADDIN! All you have to do is sign-up twenty new members for the JACG. If you wish to sign-up members for credit toward the twenty, just have each new member write "Recommended by ...." on their application. If you're the first to sign-up twenty you'll get a free one year subcription to ALLADIN. Start signing them up now!! Thanks John and ALADDIN!!!

Review
of
Leader Board

Access Software - $39.95

by Eli Toalinson

I would like to begin by not giving NeverEnding Story by Datasoft a bad review. In fact, I am not going to review it at all. I will procede instead to give Leader Board by Access a bad review. I realized that it was time to write about a program that I can't reccomend. I decided that if I continued to give good reviews to new software, people would regard my reviews with about as much faith as they do software reviews by Antic Magazine.

Before I begin to tell you why not to buy Leader Board, I will tell you to how to spend your money. If you have $16 to your name, and want something to do on your Atari, buy Super Boulderdash by Electronic Arts. I have never had so much fun, or played so much of a single arcade game. Unless you completely despise arcade games, I am confident you will like Super Boulderdash. I am not going to try to describe the game because I can't make it sound as good as it is. Instead, I will ask anyone who has not purchased this program to go to their local computer store and do so. This is especially aimed at people who have played their fair share of Super Boulderdash for free. Because of the $14.95 price tag, there is no excuse for pirating this program. If you would like to see programs this good continue to become available, support the company that sells it.

Ok, enough is enough, right? I will now suggest a way you can save money. Don't buy Leader Board. Leader Board is a golf game that was very popular on the Commodore 64. A very good ST version was also written. Unfortunately, the Atari 8-bit version is a very poor conversion. The graphics, which are a very important part of the game, are terrible. The nice smooth feel of the game seems awkward and clumsy on the Atari. Even the sound effects are bad. I really looked forward to this program coming out for the Atari 8-bit computers. On the Commodore and ST it is a very enjoyable and adictive game. On the Atari 8-bit it is a waste of money.

I hope that both Antic Magazine and Steve Panak review Leader Board. I have a feeling I could predict the reviews. Anyway, until the next time I voice my opinion, have fun with Super Boulderdash.

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Remember, receiving the JACG Newsletter
is just one of the many benefits of being a
member of JACG.

JACG
MAIL TO: Membership Chairman
                Joseph Kennedy
                126 Jupitor St.
                Clark, NJ 07066

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IT'S TIME TO GIVE A BIT

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2. Copy the information on your mailing label and send, with
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